Claims

1-14 (Canceled)

15. (New) A method for controlling the air flow L in a level control system for a motor vehicle, which vehicle contains the following components:.

- a compressor (6),
- a compressed air accumulator (18) which can be filled with air from the atmosphere and which can be emptied into the atmosphere,
- at least one pneumatic spring (2a, ..., 2d), the pneumatic spring (2a, ..., 2d) being connected to the compressed air accumulator (18) via the compressor (6) in such a way that compressed air can be transferred out of the pneumatic spring (2a, ..., 2d) into the compressed air accumulator (18) and in the opposite direction,

control taking place in such a way that the air flow L is located within specific limits, wherein the method comprises the following steps:

- predetermining two air flow intervals I_1, I_2, the first air flow interval I_1 lying within the second air flow interval I_2, and the first air flow interval I_1 having a first upper limit O_1 and a first lower limit U_1 and the second air flow interval I_2 a second upper limit O_2 and a second lower limit U_2, and,
- in any event, controlling the air flow L into the second air flow interval I_2 when the air flow L lies outside the second air flow interval I_2 before control, and,
- under specific predetermined preconditions, controlling the air flow L into the first air flow interval I_1 when the air flow L lies outside the first air flow interval I_1 and within the second air flow interval I_2 before control.

16. (New) The method as claimed in claim 15, wherein,

in the event that the air flow L lies outside the second air flow interval I_2, control is carried out in such a way that, after control, the air flow L

- lies between the second lower limit U_2 and the first lower limit U_1 when the air flow L lay below the second lower limit U_2 before control, and,
- lies between the second upper limit O_2 and the first upper limit O_1 when the air flow L lay above the second upper limit O_2 before control.

17. (New) The method as claimed in claim 15, wherein, when the air flow L lies outside the first air flow interval I_1 and within the second air flow interval I_2, control of the air flow L into the first air flow interval I_1 is carried out under the precondition that the motor vehicle has previously been put into operation.

18. (New) The method as claimed in claim 17, wherein control of the air flow L into the first air flow interval I_1 is carried out under an additional precondition that a specific time span has elapsed after the motor vehicle has been put into operation.

19. (New) The method as claimed in claim 17, wherein, after the motor vehicle has been put into operation, measurements of the air flow L are carried out, and the control of the air flow L into the first air flow interval I_1 is carried out under the additional precondition that the measured air flow L has stabilized.

20. (New) The method as claimed in one of claim 15, wherein, when the air flow L lies below the second lower limit U_2 and the level of the motor vehicle is below a safe level, first, the motor vehicle is lifted to a safe level, and then control of the air flow L takes place in such a way that the air flow L lies above the second lower limit U_2 after control.

21. (New) The method as claimed in claim 20, wherein, to lift the motor vehicle to a safe level, first, the compressed air present in the compressed air accumulator (18) is used, and, if this is not sufficient for lifting to the safe level, to lift the motor vehicle further, compressed air is drawn in from the atmosphere.

22. (New) The method as claimed in claim 21, wherein, in the event that compressed air is transferred from the atmosphere into the level control system, the method comprises the following steps:

- determining the air flow L_1 in the level control system,
- transferring compressed air out of the atmosphere directly into at least one of the

pneumatic springs (2a, ..., 2d),

- then determining the air flow L_2 in the level control system,
- determining a differential air flow $\Delta L = L_1 - L_2$,
- determining a scavenging air flow by means of the differential air flow ΔL,
- transferring the scavenging air flow from the atmosphere into the compressed air accumulator (18) via an air drier (5),
- discharging an air flow corresponding to the scavenging air flow from the compressed air accumulator (18) into the atmosphere via the air drier (5).

23. (New) The method as claimed in claim 22, wherein the scavenging air flow is transferred into the compressed air accumulator (18) in a plurality of cycles.

24. (New) The method as claimed in claim 22, wherein, in addition to the scavenging air flow or regeneration air flow, an air flow L_z is transferred into the compressed air accumulator (18) via the air drier (5) and is dimensioned such that, after the transfer of this air flow L_z, the air flow L in the level control system lies above the second lower limit U_2.

25. (New) The method as claimed in claim 15, wherein, for transferring compressed air from the atmosphere into the level control system, the method comprises the following steps:

- determining the air flow L_1 in the level control system,
- transferring compressed air from the atmosphere into the level control system via an air drier (5),
- then determining the air flow L_2 in the level control system,
- determining a differential air flow $\Delta L = L_1 - L_2$,,
- determining, by means of the differential air flow ΔL, a regeneration air flow which is necessary in order to regenerate the air drier (5),
- transferring at least the regeneration air flow from the atmosphere into the level control system via the air drier (5) and discharging it into the atmosphere again via

the air drier (5) for the regeneration of the latter.

26. (New) The method as claimed in claim 15, wherein, when the air flow L lies above the second upper limit O_2 and the level of the motor vehicle is above a safe level, compressed air is discharged from the pneumatic springs (2a, ..., 2d) simultaneously into the compressed air accumulator (18) and into the atmosphere.

27. (New) The method as claimed in claim 26, wherein compressed air is discharged from the pneumatic springs (2a, ..., 2d) until the motor vehicle is at a safe level.

28. (New) A level control system for a motor vehicle, comrising the following components:

- a compressor (6),
- a compressed air accumulator (18) which can be filled with air from the atmosphere and can be emptied into the atmosphere,
- at least one pneumatic spring (2a, ..., 2d), the pneumatic spring (2a, ..., 2d) being connected to the compressed air accumulator (18) via the compressor (6) in such a way that compressed air can be transferred out of the pneumatic spring (2a, ..., 2d) into the compressed air accumulator (18) and in the opposite direction,
- a control unit (36) which carries out a control of the air flow L in the level control system in such a way that the air flow L is located within specific limits, wherein the system is capable of predetermining two air flow intervals I_1, I_2 in the control unit (36), the first air flow interval I_1 lying within the second air flow interval I_2, and the first air flow interval I_1 having a first upper limit O_1 and a first lower limit U_1 and the second air flow interval I_2 a second upper limit O_2 and a second lower limit U_2.